

William (Bill) J. Lyons, Jr.
Secretary

Details of the Pricing Formulas, Classes 2 and 3 (Part 3 of 4)

by Dr. Eric Erba, Sr. Agricultural Economist

In the two previous issues of the CDR, we explained the details of the Class 4a and Class 4b pricing formulas. This article will explain the Class 2 and 3 pricing formulas and how they interface with the Class 4a pricing formula. Unlike Classes 4a and 4b, which accounted for over seventy percent of the milk produced, Classes 2 and 3 make up a much smaller portion of all milk processed. Roughly eleven percent of the milk produced is used to process Class 2 and 3 products, which include cottage cheese, yogurt and frozen dairy products.

The prices for Classes 2 and 3 are directly tied to the prices for Class 4a by use of differentials. Once the appropriate Class 4a component prices have been obtained, the pricing formulas require only the addition of price differentials that depend on the location of the plant processing the milk. As such, the pricing formulas for Classes 2 and 3 are the simplest pricing formulas, mechanically speaking, of the five classes of milk. The use of the differentials over and above the Class 4a component prices serves two purposes. First, the differentials are intended to impart more revenue to producers for milk that is used for value-added products. Second, the differentials are established at levels that do not provide any economic incentive for manufacturers to develop products by reconstituting

intermediate dairy products, such as butter, anhydrous butteroil and nonfat dry milk.

While Class 4a and Class 4b prices are calculated retroactively, meaning that the prices are calculated "after-the-fact", Classes 2 and 3 are priced forward. In other words, the minimum prices for milk used in Class 2 and 3 products are announced in advance of when they actually apply. Furthermore, the announced prices hold for two months at a time; they do not change every month as the Class 4a and 4b prices do. Finally, the Class 2 and 3 pricing formulas use the average prices for Class 4a fat and Class 4a solids-not-fat (SNF) for the two prior months. An example may help to clarify these three points. The Class 2 and 3 prices for June and July are calculated from the average of the April and May Class 4a fat and SNF component prices and are announced at the end of May. The next price announcement would not occur until the end of July, at which time the prices for August and September would be announced and would be calculated from the average of the June and July Class 4a fat and SNF component prices.

Determining the minimum prices that California processors must pay for milk used to produce

Continued on Page 3

In This Issue. . .

- ▶ Details of Pricing Formulas Page 1
- ▶ Producer Update: Bovine TB Status. . . Page 4
- ▶ BSE Update: Page 5
- ▶ National Situation and Outlook Page 6
- ▶ Cooperatives Working Together Program . . . Page 6
- ▶ Dairy Advisory Committee Meeting . . . Page 6

APRIL MILK PRODUCTION

Milk production in California for April 2003 totaled 3.1 billion pounds, up 2.7 percent from April 2002. USDA's estimate for U.S. milk production for April 2003 in the 20 major dairy states is 12.7 billion pounds, up 0.8 percent from April 2002. Production per cow in the 20 major states averaged 1,625 pounds for March, which is 4 pounds above April 2003. ☀

MINIMUM CLASS PRICES

Statewide average hundredweight prices

Class	May	June
1	\$11.86	\$11.92
2	\$10.23	\$10.41
3	\$10.08	\$10.24
4a	\$ 9.54	-----
4b	\$ 9.28	-----

FEDERAL ORDER AND CALIFORNIA MINIMUM CLASS 1 PRICES

Average Hundredweight Prices

Regions	May	June
Phoenix, Arizona	\$12.06	\$12.09
Southern California	\$12.00	\$12.06
Portland, Oregon	\$11.61	\$11.64
Northern California	\$11.72	\$11.79
Boston (Northeast)	\$12.96	\$12.99

QUOTA TRANSFER SUMMARY

For April 2003, ten dairy producers transferred 9,308 pounds of SNF quota. April quota sales averaged \$469 per pound of SNF (without cows), an average ratio of 2.43. For May 2003, nine dairy producers transferred 4,289 pounds of SNF quota. May quota sales averaged \$443 per pound of SNF (without cows), an average ratio of 2.38. ☀

ALFALFA UPDATE: MAY

Northern California: Most of the month of May found areas recovering from numerous rainstorms, with most new sales on hay with faults from light to heavy rain damage. Retail and stable hay seeing some new crop near the end of the month. Many areas are getting back on track with rain damaged and old growth hay up and out of the fields.

Southern California: May found Supreme alfalfa steady to firm as northern buyers looking for high testing hay. Rain and wind were troublesome to growers during the month. Various forage mixed hay being produced in Antelope Valley and baled by late May. ☀

SUPREME HAY PRICES

Statewide average prices per ton

Area	5/2	5/9	5/16	5/23
Petaluma	-----	-----	-----	-----
North Valley ¹	\$150-155	\$147-155	\$142-153	\$145-155
South Valley ²	\$145-154	\$140-154	\$145-148	\$143-147
Chino Valley	\$136-138	-----	-----	-----

¹North Valley is Escalon, Modesto and Turlock areas.

²South Valley is Tulare, Visalia and Hanford areas.

ALFALFA HAY SALES/DELIVERY

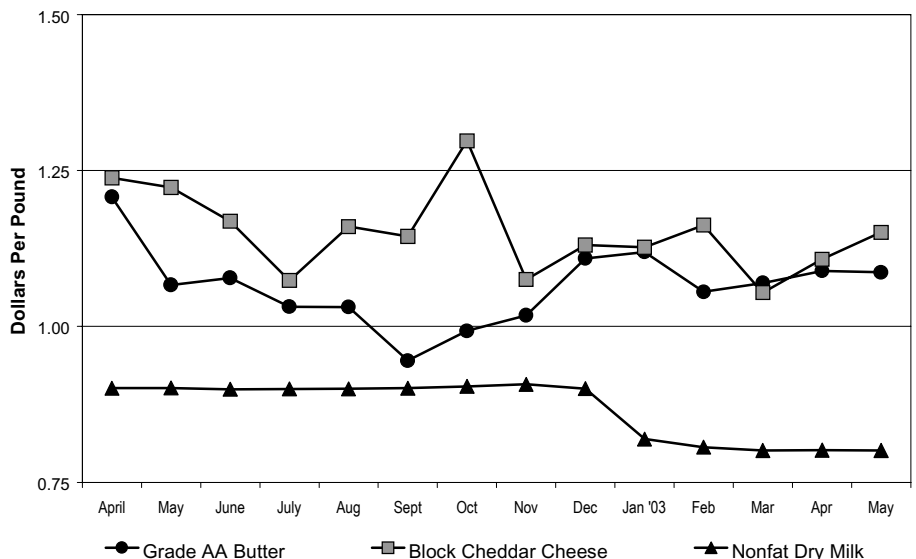
	April	May
Tons Sold ¹	129,569	155,633
Tons Delivered ²	62,185	57,178

¹For current or future delivery.

²Contracted or current sales.

Alfalfa hay sales, deliveries and Supreme quality prices per ton, delivered to dairies, as reported by the USDA Market News Service, Moses Lake, WA, (509) 765-3611, <http://www.ams.usda.gov/marketnews.htm>

Grade AA Butter, Block Cheddar Cheese, and Nonfat Dry Milk Prices Used in the Calculation of California Class 1 Milk Prices



Details of the Pricing Formulas *(Continued from Page 1)*

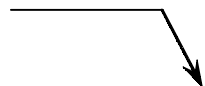
Class 2 and 3 products involves four basic steps:

- 1) Determine or obtain the average of the two prior month's published Class 4a fat price. To the average Class 4a fat price per pound, add:
 - a) \$0.0370 for **both** the Class 2 and 3 fat prices, as applied to Northern California plants.
 - b) \$0.0393 for **both** the Class 2 and 3 fat price, as applied to Southern California plants.
- 2) Determine or obtain the average of the two prior month's published Class 4a SNF price. To the average Class 4a SNF price per pound, add \$0.0586 for to obtain the Class 3 SNF price for both marketing areas.
- 3) Determine or obtain the average of the two prior month's published Class 4a SNF price. To the average Class 4a SNF price per pound, add:
 - a) \$0.0643 for the Northern California Class 2 SNF price
 - a) \$0.0901 for the Southern California Class 2 SNF price
- 4) To get a hundredweight price for either Class 2 or Class 3, multiply the fat price by 3.5, multiply the SNF by 8.7 and add the two products.

The following schematics shows how all of the elements of the pricing formula interact. The differentials in the two pricing formulas are constant from month to month until they are amended through a public hearing.

Class 3 Pricing Formula

$$(1) \text{ Class 3 fat price} = \text{average Class 4a fat price} + \left(\begin{array}{c} \$0.0370 \text{ in Northern California} \\ \text{OR} \\ \$0.0393 \text{ in Southern California} \end{array} \right)$$



Fat price differentials depend on processor location.

$$(2) \text{ Class 3 SNF price} = \text{average Class 4a SNF price} + (\$0.0586 \text{ throughout California})$$

Once the fat and SNF price have been calculated, the Class 3 price per hundredweight is easily obtained. The hundredweight price uses a standardized milk test, containing 3.5% fat and 8.7% SNF. Therefore, the Class 3 hundredweight price is:

$$(3.5 \times \text{price of Class 3 fat}) + (8.7 \times \text{price of Class 3 SNF})$$

Class 2 Pricing Formula

$$(1) \text{ Class 2 fat price} = \text{Average Class 4a fat price} + \left(\begin{array}{c} \$0.0370 \text{ in Northern California} \\ \text{OR} \\ \$0.0393 \text{ in Southern California} \end{array} \right)$$

Differentials depend on milk component and processor location.

$$(2) \text{ Class 2 SNF price} = \text{Average Class 4a SNF price} + \left(\begin{array}{c} \$0.0643 \text{ in Northern California} \\ \text{OR} \\ \$0.0901 \text{ in Southern California} \end{array} \right)$$





Bovine Tuberculosis in California

On April 25, 2003, the United States Department of Agriculture (USDA) removed California from its list of tuberculosis (TB) accredited-free states because three TB-affected herds were detected within a 48-month period. California is now classified as a TB modified accredited advanced State.

Update

Since May 2002, bovine TB has been confirmed in three California dairy herds. All herds were quarantined, test-positive cattle were destroyed, and the remainder of the herds depopulated.



Investigation of a TB-infected cow found in September 2002 at a California slaughterhouse is ongoing.

As of April 30, 2003, 294,097 cattle in 191 herds have been tested for bovine TB since this investigation began, and about 13,000 cattle have been depopulated during this investigation.

Cumulative Since May 13, 2002	
Number of herds tested	191
Number of animals tested	294,097
Number of herds quarantined	3
Number of cattle destroyed	~13,000
Average number of field personnel	30

As of February 2003, we recommended a TB test within the current fair season on exhibition dairy cattle more than 6 months of age from Tulare, Kings and Fresno Counties.

Impact on California

With the downgrade from TB-free to modified accredited advanced, all sexually intact cattle and bison leaving California require official identification and a certificate stating that they were negative to an official TB test done within 60 days prior to the date of movement unless moved:

- To slaughter at an approved slaughtering establishment;
- From an accredited herd and accompanied by a certificate stating that the accredited herd completed the testing necessary for accredited status with negative results within one year prior to the date of movement.

The new TB requirements do not apply to sexually intact heifers moving to feedlots, or steers and spayed heifers, until September 30, 2003. However, some states may have more restrictive policies for moving feeder cattle. Always check with the state of destination for their TB test requirements.

The USDA is reviewing its regulations used to determine a state's TB status and expects to publish a new rule by September 2003. The USDA will consider comments on the rule downgrading California's TB status until June 24, 2003.

Agreements developed with neighboring states ease the TB testing requirements on breeding beef cattle moving interstate annually for grazing on an approved Pasture-to-Pasture permit. Breeding beef cattle 24 months of age and older require a TB test within 12 months of application for the permit, and subsequently every 3 years to continue to move annually while California is less than TB-free.

Plans

The California Department of Food and Agriculture (CDFA), USDA, and the cattle industry are working together to control and eradicate bovine TB from California. Current plans to enhance the California TB program include:

- Continue testing all 677 dairy herds in Tulare, Kings, and Fresno Counties (~773,000 milking cows), prioritizing dairies that recently received out-of-state cattle.
- Require a TB test before importing dairy cattle into California.

California can reapply for accredited free status in April 2005 provided that no additional infected herds are detected.

CDFA Animal Health Branch Offices	
Sacramento (HQ)	916-654-1447
Modesto	209-491-9350
Ontario	909-947-4462
Redding	530-225-2140
Tulare	559-685-3500
Tulare TB Task Force	559-687-1158
CDFA Milk and Dairy Foods Control Branch Offices	
Stockton	209-466-7186
Oakland	510-622-4810
Fresno	559-445-5506
Ontario	909-923-9929
USDA/APHIS/VS	
916-857-6170 or 877-741-3690	

For more information, visit Web sites at: www.cdca.ca.gov or www.aphis.usda.gov/vs

May 23, 2003 Update: Bovine Spongiform Encephalopathy

by Dr. Anita Edmondson, CDFA

May 20, 2003 the Canadian Minister of Agriculture announced that they had confirmed a case of Bovine Spongiform Encephalopathy (BSE) in a crossbred cow from a herd in northwestern Alberta, Canada. The 6-year old beef cow was slaughtered on January 31, 2003. The carcass was condemned because of pneumonia and did not go into the human food supply, but was rendered. On May 16, 2003 brain tissue from the cow was tested for BSE as part of the routine BSE surveillance program in Canada. On May 18, 2003 the sample was positive for BSE in Winnipeg, and the remaining 149 animals in the herd of origin were quarantined. The world reference laboratory for BSE in Weybridge, UK, confirmed BSE on May 20, 2003, and this finding was reported to the OIE.

On May 20, 2003 the United States Department of Agriculture stopped the importation of ruminants and ruminant products from Canada until further notice, in compliance with existing BSE regulations. Animals and products that entered before are not restricted at this time. Depopulation of the herd of origin of the infected animal began on May 21, 2003; samples were being collected for BSE tests before the carcasses were incinerated. Results are expected in a few days.

The traceback investigation is advancing. The herd was reported to have been put together three years ago from three sources, including two dealers. As of May 23, Canada had thirteen cattle herds quarantined: eight in Alberta, two in Saskatchewan and three in B.C. Seven of the herds involved the cow's movement during its life, three involved the cow's offsprings, and three were quarantined while investigating the distribution of feeds associated with the affected cow.

BSE was a new disease first diagnosed in the UK in 1986. Since then it has been found in cattle in Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Liechtenstein, Luxembourg, Netherlands, Poland, Portugal, Slovakia, Spain and Switzerland. BSE does not spread from animal to animal, but spreads through contaminated meat and bone meal in animal feed. The BSE agent is found in high concentration in central nervous system tissues such as the spinal cord and brain of infected cattle, but has not been found in meat or

milk from cattle. Rendering does not destroy the BSE agent, but reduces the concentration of the agent.

Information on U.S.-Canadian trade:

According to Alberta agriculture sources, 511,656 live cattle were shipped from Alberta to the U.S. in 2002. California received over 7,000 cattle from Canadian between January 2002 and May 2003: 5,941 dairy, 1,189 beef feeders, 134 beef for slaughter, 107 breeding beef. 47 of these cattle were breeding beef animals and 37 were dairy animals from Alberta. Many Canadian cattle enter California from other states and are not identified as Canadian cattle on their movement documents.

Measures To Exclude and Prevent the Spread of BSE in the United States

1. **Importation Ban:** The importation of live ruminants and ruminant products into the US from any country known to have BSE has been banned since 1989. In 1997 the ban was extended to include live ruminants and ruminant products from all Europe, and in December 2000 the importation of all rendered animal products from Europe, regardless of species, was banned.
2. **Surveillance:** BSE is a reportable disease. The US surveillance program began in 1990. It focuses on cattle with the highest risk of neurological disease, including non-ambulatory cattle, those that die on the farm, older animals, and animals exhibiting signs of neurological disease. During fiscal year 2002, nearly 20,000 U.S. cattle were tested for BSE out of a total of about 36 million slaughtered. This is well in excess of OIE recommendations. About 2,000 cattle are tested yearly from California. All samples are tested at a federal laboratory; the turn-around time for the test is 10 days to two weeks. No positive samples have been found from U.S. cattle.
3. **Feed ban:** The Food and Drug Administration banned the use of feed supplements containing mammalian protein (such as meat and bone meal) with certain exceptions from ruminant feed in 1997. ☀

National Dairy Situation and Outlook – USDA Estimates

Milk Production and Cow Numbers

Monthly: Compared to 2002, USDA estimates that overall milk production across the U.S. was up 0.6% in April, led by Idaho's 6.9% growth in milk production (on 13,000 more cows and 60 more pounds per cow). California's estimated production was up 3.1% (on 60,000 more cows and 10 less pounds per cow). Among other western states, Arizona was up 0.3%; New Mexico up 6.5%; and Washington down 0.2%. Four of the top 10 states reported a decrease: New York, -0.1%; Minnesota -4.7%; Washington, -0.2%; and Pennsylvania -1.4%.


Quarterly: For the first quarter of 2003 compared to the fourth quarter of 2002, U.S. milk cow numbers were up 0.5% at 9.155 million, production per cow was up 0.1%; the net effect was a 1.4% increase in milk production to 43.0 billion pounds. USDA projects that for the second quarter of 2003 compared to the first quarter of 2003, U.S. milk cow numbers will decrease 19,000 cows to 9.130 million cows, production per cow will be up 1.0%; the net effect would be a 0.9% increase in milk production to 44.4 billion pounds.

Milk Prices

Comparing the first quarter of 2003 to the fourth quarter of 2002, U.S. average milk prices were down \$0.44/cwt. to \$11.37/cwt. USDA projects that for the second quarter of 2003, U.S. average milk prices will be down \$0.40-0.70/cwt. compared to the first quarter; including a \$0.05-0.25/cwt. Class 4b price decrease and a \$0.00-0.30/cwt. Class 4a price decrease.


Utility Cow Prices

Comparing the first quarter of 2003 to the fourth quarter of 2002, average U.S. utility cow prices were up \$4.63/cwt. to a national average of \$40.32/cwt. USDA projects that utility cow prices will rise to \$43-45 levels in the second quarter of 2003.


Information from the USDA-NASS publication "*Milk Production*" and the USDA-ERS publication: "*Live-stock, Dairy, and Poultry Outlook*." 

Upcoming Hearing


Just a reminder that the Department has scheduled a public hearing to consider amendments to the milk movement incentives as provided in the Pooling Plan for Market Milk (Pooling Plan) and the Stabilization and Marketing Plans for Market Milk for the Northern California and Southern California Marketing Areas (Stab Plans). The hearing will be held on June 4, 2003, beginning at 9:00 a.m., in Sacramento, at the Holiday Inn Capitol Plaza, 300 J Street, in the California Room.

The petition received from Land O'Lakes proposed amendments to the transportation allowance and transportation credit system, respectively, in the Pooling Plan and Stab Plans. The Department broadened the call of the hearing to include other sections of the Pooling Plan and the Stab Plans that deal with related issues, including transportation credits and allowances, milk movement requirements, and regional quota adjusters. 

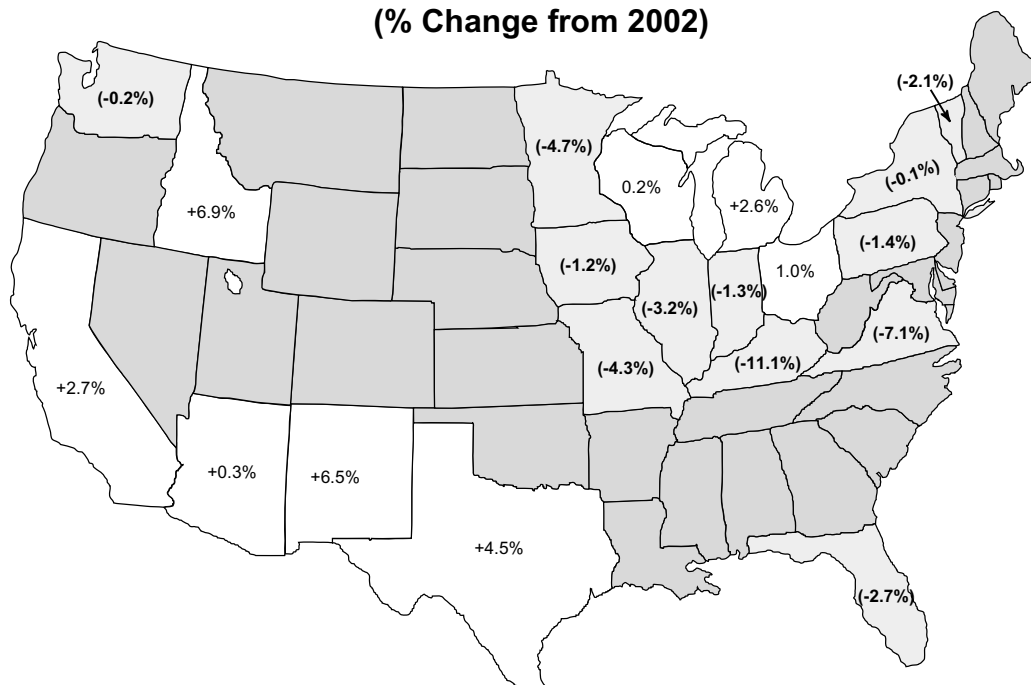
Cooperatives Working Together

The National Milk Producers Federation (NMPF) has established Cooperatives Working Together (CWT), a voluntary dairy industry program that is farmer-led and farmer-funded. This national effort will address the supply and demand imbalances that are depressing farm-level milk prices. For more information and up-to-date news relating to this new program, visit the NMPF website, www.nmpf.org or email questions directly to info@nmpf.org. 

Dairy Advisory Committee Meets in June

The next meeting of the Dairy Advisory Committee (DAC) is scheduled for June 5, 2003 in the River City Room at the Capitol Plaza Holiday Inn (16th Floor) at 300 J Street in Sacramento. The full committee will meet at 10:00 a.m. to review the budgets for the 2003-04 fiscal year for the Dairy Marketing and Milk Pooling Branches. 

April Milk Production in the Top 20 States (% Change from 2002)



For the U.S. overall, comparing April 2003 to April 2002:

- Milk production during April was up 0.6%
- The number of cows on farms was 9.140 million head, up 8,000 head
- Production per cow averaged 1,605 pounds, 8 pounds more than April 2002

Milk Production Cost Index for California

Month	North Coast 1/		North Valley		South Valley		Southern California		Statewide Weighted Average	
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
<i>Dollars per Hundredweight</i>										
January	13.86	13.90	12.97	13.00	12.90	12.68	13.10	12.95	13.0110	12.8796
February	13.86	13.90	12.97	13.00	12.90	12.68	13.10	12.95	13.0110	12.8796
March			12.50		12.49		12.98		12.6245	
April			12.50		12.49		12.98		12.6245	
May			12.50		12.94		13.05		12.8019	
June			12.50		12.94		13.05		12.8019	
July			12.59		13.57		13.42		13.1835	
August			12.59		13.57		13.42		13.1835	
September			12.89		13.39		13.70		13.2803	
October			12.89		13.39		13.70		13.2803	
November			12.99		12.78		13.26		12.9767	
December			12.99		12.78		13.26		12.9767	

1/ Beginning with the January-February 2003 cost period, Del Norte/Humboldt and North Bay cost regions are combined and reported as the North Coast Region.

HUNDREDWEIGHT POOL PRICES

Month	Quota	Overbase
December	\$12.93	\$11.23
January '02	\$13.18	\$11.48
February	\$12.53	\$10.83
March	\$12.37	\$10.67
April	\$12.41	\$10.71
May	\$12.06	\$10.36
June	\$11.60	\$ 9.90
July	\$11.28	\$ 9.58
August	\$11.48	\$ 9.78
September	\$11.58	\$ 9.88
October	\$11.84	\$10.14
November	\$11.44	\$ 9.74
December	\$11.48	\$ 9.78
January '03	\$11.40	\$ 9.70
February	\$11.11	\$ 9.41
March	\$10.93	\$ 9.23
April	\$11.02	\$ 9.32

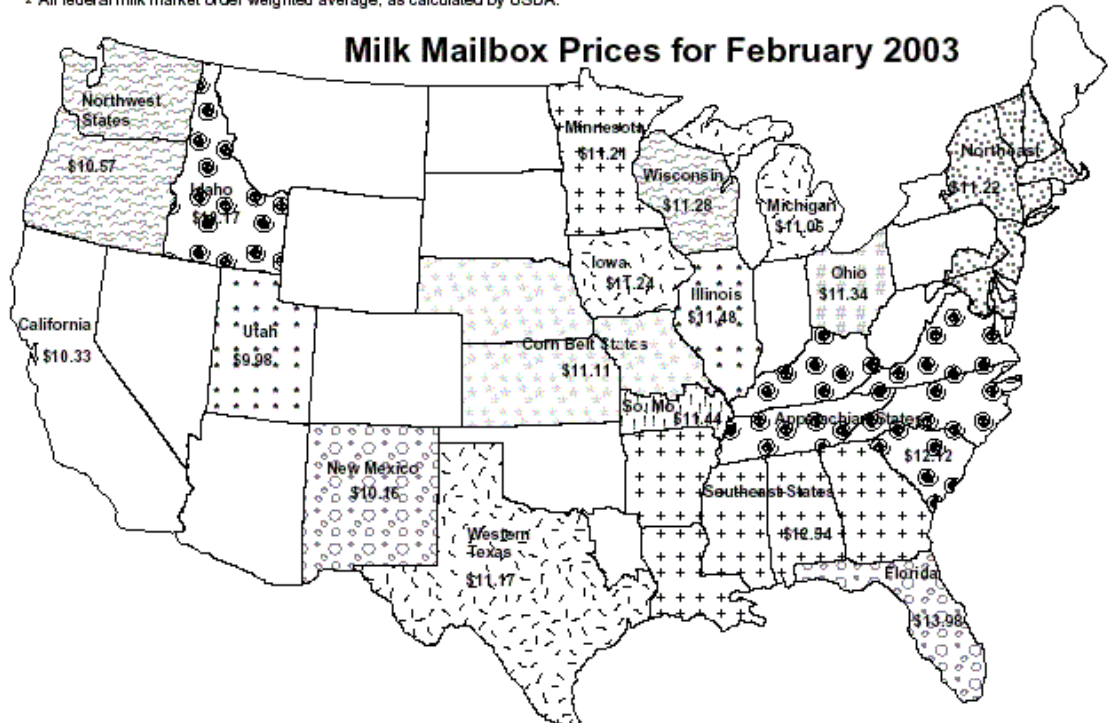
Milk Mailbox Prices in Dollars per Hundredweight

	August	September	October	November	December	January '03	February
California ¹	\$10.35	\$10.58	\$10.94	\$10.69	\$10.68	\$10.64	\$10.33
USDA ²	\$11.18	\$11.40	\$12.00	\$11.75	\$11.69	\$11.61	\$11.19

¹ California mailbox price calculated by CDFA.

² All federal milk market order weighted average, as calculated by USDA.

Milk Mailbox Prices for February 2003



In February 2003, mailbox milk prices for selected reporting areas in Federal milk orders averaged \$11.19 per cwt., \$0.42 less than the figure for the previous month. Most of this month-to-month decrease results from lower Federal milk order minimum producer milk prices. The component tests of producer milk in February 2003 were: butterfat, 3.74%; protein, 3.08%; and other solids 5.70%. On an individual reporting area basis, mailbox prices decreased in all reporting areas, and ranged from \$13.98 in Florida to \$9.98 in Utah. In February 2002, the Federal milk milk order all-area average mailbox price was \$12.91, \$1.72 higher.

Note: Effective with the January 2003 report, the Iowa reporting area has been removed from the Corn Belt States reporting area and is reported separately. The Northern Missouri reporting area has been added to the Corn Belt States reporting areas.